

## عنوان مقاله:

Effects of flaxseed oil and olive oil on markers of inflammation and wound healing in burn patients: a randomized clinical trial

## محل انتشار:

نهمین کنگره کشوری سوختگی (سال: 1398)

تعداد صفحات اصل مقاله: 1

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## خلاصه مقاله:

**Background and Aim :** Due to the high cost of burns in developing countries, medicinal herbs can be safe, inexpensive and effective alternatives to pharmaceutical drugs. In this study, the anti-inflammatory and antioxidant effects of flaxseed oil and olive oil on inflammatory markers were studied to facilitate wound healing **Methods :** 112 patients with a total burn surface area (TBSA) of 20–50% were randomly selected to four groups, including olive oil, flaxseed oil, mixture of olive oil and flaxseed oil, and control groups and received 30g of oils for three weeks. Data were collected using a questionnaire on demographic and disease information. A 24-hour dietary recall questionnaire was also used to evaluate and control the patients' nutrition. Serum high-sensitivity C-reactive protein (hs-CRP), ferritin and albumin level as inflammatory markers were explored. Wound healing was assessed by photographing on days 2, 8, 15, and 22 (during three weeks of intervention) and were analyzed in ImageJ software. Clinical trial Identifier: IRCT20080901001174N11 at <http://www.irct.ir>. **Results :** The greatest reduction in the level of hs-CRP and ferritin was observed in the mixture of olive oil and flaxseed oil ( $-21.38 \pm 44.41$ ) ( $-132.79 \pm 165.36$ ), while the lowest reduction was reported in the control group ( $-36.36 \pm 79.03$ ) ( $141.08 \pm 262.36$ ). Compared to control group, olive oil significantly increased albumin ( $0.88 \pm 0.65$ ). Reduction of wound healing at the end of the first week of intervention was not significant in the study groups. However, the stereology examination showed significant improvement in wound healing at the end of the second and third weeks in the mixture of olive oil and flaxseed oil. The results showed

that the mean length of hospital stay in the intervention groups was shorter than the control group, but this decrease was not statistically significant ( $p > 0.05$ ). Conclusion : Based on the findings, combination of herbal oils may reduce inflammation and improve the wound stage in burn patients. Moreover, combination of flaxseed oil and olive oil showed positive effects on the size of wounds

### کلمات کلیدی:

Flaxseed oil, Olive oil, Burn wound, Inflammation indices

### لینک ثابت مقاله در پایگاه سیویلیکا:

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